THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WOLFGANG SCHULZ

Appeal No. 97-1243
Application 08/443,301[1]

HEARD: JUNE 10, 1999

Before STAAB, McQUADE and BAHR, *Administrative Patent Judges*.

STAAB, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final rejection of claim 1. Claims 2-4 have been objected to as being dependent upon a rejected claim, but would be allowable

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[1] Application for patent filed May 17, 1995.

if rewritten in independent form to include all of the limitations of the base claim and any other intervening claim. Claims 5-7, the only other claims remaining in the application, have been withdrawn from further consideration under 37 CFR § 1.142(b) as not being readable on the elected species. An amendment filed subsequent to the final rejection has been entered.

Appellant's invention pertains to a pump for use in detecting leaks in the fuel tank system of an internal combustion engine. Claim 1, a copy of which is found in an appendix to appellant's brief, defines the appealed subject matter.

The sole reference relied upon by the examiner in support of the rejection under appeal is:

Stocker et al. (Stocker), "Tank Diagnosis: A Novel Method For Reliable Leakage Detection, Aachener Kolloquium on Motor Vehicle and Engine Technology, pp. 467-477 (1993).[2]

Claim 1 stands rejected under 35 U.S.C. § 102(b) as being

[2] Our understanding of this reference is derived from a discussion thereof found on pages 1 to 3 of appellant's specification, a partial translation submitted by appellant, and a complete translation prepared in the Patent and Trademark Office. A copy of the PTO translation is attached to this opinion.

anticipated by or, in the alternative, under 35 U.S.C. § 103 as being obvious over Stocker. The examiner considers that Stocker discloses in Figure 7 a pump that corresponds to the pump set forth in claim 1 with the possible exception of the venting of the electromagnetic valve. With respect to this feature, the examiner considers that "[t]he electromagnetic valve of the device shown in Fig. 7 of . . . [Stocker] appears to be vented. In any event, it would have been obvious to one of ordinary skill in the art to vent the electromagnetic valve in order to provide cooling or dissipate heat" (final rejection, page 2).

Appellant's argument in response to the positions taken by the examiner in rejecting the appealed claim centers on the shut-off valve requirements of claim 1. For example, on pages 3-4 of the brief, appellant argues:

> . . . [A]ppellants fail to find the claimed shut-off valve 25 provided between the supply conduit and the delivery conduit. . . . There is no shut-off valve such as valve 25 as set forth in the claimed subject matter and shown in appellant's Fig. 1. Since Stocker et al do not teach the valve 25, then Stocker et al cannot meet the terms of the claim[] which set[s] forth "when the shut-off valve 25 is closed, ambient air induced in the delivery space 57 is delivered via the second non-return valve 29 into the tank system.["] Since Stocker et al do not

> teach a cut-off valve such as the claimed cut-off valve 25, Stocker cannot teach the effects of having a shut-off valve 25.

This argument is continued on pages 4-5 of the brief, wherein appellant argues:

> In the remarks by the Examiner, it appears that the Examiner has only considered the apparatus of Fig. 7 of Stocker et al and the apparatus of Figs. 2a and 2b of appellant's application. The claim[] set[s] forth the shut-off valve 25 which has been shown in Fig. 1. Appellants fail to find a teaching of a valve in Stocker et al which functions as the claimed valve 25. Therefore, in addition to appellant's application not having a vent hose as set forth by Stocker et al, appellant has added the shut-off valve shown in Fig. 1.
>
> Accordingly, it is believed that Stocker et al do not anticipate claim 1 because of requiring the added vent hose and for not disclosing the claimed shut-off valve.

Concerning the examiner's alternative rejection under 35 U.S.C. § 103, appellant argues on page 5 of the brief:

> The claim has been rejected in the alternative under 35 USC 103. For the reasons given above, it is believed that Stocker et al do not teach the claimed invention. Particularly, appellants believe that there is no teaching of the claimed shut-off valve which connects with both the inlet and the outlet of the apparatus set forth by appellants.

We have carefully reviewed the appellant's invention as described in the specification, the appealed claim, the prior

art applied by the examiner and the respective positions advanced by the appellant in the brief and by the examiner in the answer. As a consequence of this review, we conclude that appellant's argument is not persuasive of error on the part of the examiner in rejecting the appealed claim. We therefore will sustain the examiner's rejection.

With reference to the annotated copy of Fig. 7 of Stocker found in the PTO translation, Stocker discloses a pump comprising an integrated electromagnetic valve ("Schaltventil" or "on-off valve"), a pump diaphragm ("Pumpmembran" or "pump membrane"), a pump space ("Obere Pumpkammer" or "upper pump space") between the electromagnetic valve and the pump diaphragm, and a delivery space between the pump diaphragm and first and second check valves (not labeled). The delivery space is connected to ambient air via the left hand check valve and a supply conduit ("Atmosphäre (Filter)" or "atmosphere (filter)") and to the absorptive filter of the tank system via the right hand check valve and a delivery conduit ("Aktivkohle - Filter" or "activated charcoal filter"). Stocker further discloses a shut-off valve ("Absperrventil" or "cut-off valve") between the supply

conduit and the delivery conduit. During diagnosis of the tank system, the pump space of Stocker is connected to a vacuum source ("Saugrohr - unterdruck" or "suction pipe negative pressure") when the electromagnetic valve is energized and to ambient air via the supply conduit and a U-shaped bypass conduit (not labeled) when the electromagnetic valve is not energized, thereby causing the pump diaphragm to execute a pumping motion.[3]

Concerning the operation of Stocker's shut-off valve, we find that when diagnosis is not being made, the shut-off valve is in the illustrated lower position to allow for direct communication between the supply conduit and the delivery conduit. See PTO translation, page 9, lines 8-10 ("The diagnostic pump is connected to the ventilation line of the activated charcoal filter and, when at rest, *opens this line*." (emphasis added)). We further find that when diagnosis is being made, Stocker's shut-off valve is in a raised position above the position shown in Figure 7 to prevent direct communication between the supply conduit and the delivery

[3] See page 2, lines 2-24, of appellant's specification and the paragraph spanning pages 9 and 10 of the PTO translation.

conduit. See PTO translation, page 9, lines 14-17 ("The spring in the lower shut-off membrane chamber *causes the shut-off valve to be closed for the diagnosis*. The membrane remains above the plunger during the entire diagnosis process *so that the valve cannot open*." (emphasis added)).

As to the shut-off valve limitation of claim 1 argued by appellant as patentably distinguishing over Stocker, as we see it, since the shut-off valve of Stocker "[is] closed for the diagnosis" (PTO translation, page 9, line 13), so that, for the entire diagnosis process, "the valve cannot open" (PTO translation, page 9, line 14), it reasonably appears that Stocker's pump will function in the manner called for in the claim, namely, such that when the shut-off valve is closed, as during diagnosis, the pumping action of the diaphragm will cause ambient air drawn into the delivery space via the supply conduit and the left hand check valve to be delivered via the right hand check valve and the delivery conduit to the absorptive filter of the tank system. Accordingly, we hold that Stocker's pump meets the requirement of claim 1 that "when the shut-off valve . . . is closed, ambient air induced

in the delivery space . . . is delivered via the second non-return valve . . . into the tank system."

In light of the above, it should be apparent that we simply do not agree with appellant's argument on page 3 of the brief that "[t]here is no shut-off valve [in Stocker] such as valve 25 as set forth in the claimed subject matter . . . ." As to the provision in Stocker of an external bypass hose to provide ambient air to the pump space during diagnosis, we observe that claim 1 is cast in open terminology ("A pump appliance for a tank system of an internal combustion engine, *having* . . ." (emphasis added)). This terminology does not serve to preclude the presence of other elements, such as Stocker's bypass hose, in addition to those specified in the claim. Accordingly, appellant's argument to the effect that Stocker does not anticipate the appealed claim because Stocker requires an added vent tube is not persuasive in that it is not commensurate in scope with the invention as claimed. Concerning the examiner's position that Stocker's electromagnetic valve is vented as claimed, and the examiner's alternative position that, in any event, it would have been obvious to so vent Stocker's electromagnetic valve, we note

that appellant has not challenged these positions with any reasonable degree of specificity.

Accordingly, as argued, we will sustain the examiner's anticipation/obviousness rejection of claim 1 based on Stocker.

The decision of the examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

LAWRENCE J. STAAB Administrative Patent Judge	)	
JOHN P. McQUADE Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
JENNIFER D. BAHR Administrative Patent Judge	)	

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